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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,754	11/17/2003	Klaus Kuepper	588.1002	3376

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EXAMINER

BEHNCKE, CHRISTINE M

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EA

Office Action Summary	Application No. 10/714,754	Applicant(s) KUEPPER ET AL.	
	Examiner Christine M. Behncke	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-15 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 12 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This office action is in response to the Amendment and Remarks filed 6 May 2005, in which claims 1-22 were presented for examination.

Response to Arguments

2. Applicant's arguments, see Remarks, filed 6 May 2005, with respect to the rejection(s) of claim(s) 1 and 20 under Fritzer et al., US Publication No. 2002/0084129, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kosik et al.

Applicant's arguments, see Remarks, filed 6 May 2005, with respect to the objection of the specification have been fully considered and are persuasive. The objection to the specification has been withdrawn.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 13, 14 and 17-20 rejected under 35 U.S.C. 102(e) as being anticipated by Kosik et al., US Patent No. 6,358,186.

4. **(Claim 1)** Kosik et al. discloses a method for controlling and/or regulating a torque transmission system in a drivetrain, a clutch torque being changed as a function of a starting resistance of the vehicle in order to implement a strategy for starting the vehicle (Column 7, lines 34-37 and Abstract), the method comprising the step of: modifying the strategy so that a progression of the clutch torque is adjusted to a starting situation (Column 1, lines 31-35 and figure 13), the modification beginning when a predetermined minimum throttle valve angle is reached (Column 4, lines 48-52).
5. **(Claim 2)** Kosik et al. further discloses wherein the strategy influences the progression of the clutch torque as a function of the engine speed (Column 3, lines 1-3).
6. **(Claim 3)** Kosik et al. further discloses wherein, for the starting situation of the vehicle on a hill, the clutch torque is built up slowly (a hill can be indicated as a large load situation, figure 12 Extreme load=False, Column 16, line 52-Column 17, line 41).
7. **(Claim 4)** Kosik et al. further discloses wherein, for the starting situation of the vehicle over a curb, the clutch torque is built up rapidly (a curb is indicated as an extreme load, an extreme incline, in which more engine torque is needed to be applied in order for movement of the vehicle, Column 16, lines 5-66 and figures 12 and 13).
8. **(Claim 5)** Kosik et al. further discloses determining a velocity of the vehicle for use in the strategy (Column 4, lines 3-8).
9. **(Claim 6)** Kosik et al. further discloses running a starting aid routine integrated in the strategy (Abstract).

10. **(Claim 7)** Kosik et al. further discloses running a multistage starting aid routine in the strategy (Column 2, lines 52-59).
11. **(Claim 8)** Kosik et al. further discloses wherein a first stage and a second stage are provided in the starting aid routine (Column 2, lines 52-59 and Column 5, lines 4-9).
12. **(Claim 9)** Kosik et al. further discloses wherein a higher maximum speed is implemented in the second stage of the starting aid routine than in the first stage (Column 5, lines 4-9 and Column 4, lines 46-47).
13. **(Claim 13)** Kosik et al. further discloses wherein engine speed regulation is provided in the starting aid routine (figures 11A-B and 13).
14. **(Claim 14)** Kosik et al. further discloses wherein, in the engine speed regulation, the clutch torque is reduced before the engine speed reaches a preset target engine speed (determined by Kmax, Column 17, lines 4-37).
15. **(Claim 17)** Kosik et al. further discloses determining if the vehicle is starting on a hill, and if so, building up the clutch torque at a predetermined rate (Column 11, lines 16-20 and figure 13).
16. **(Claim 18)** Kosik et al. further discloses determining if the vehicle is against a curb, and if so, building up the clutch torque at a rate faster than the predetermined rate (Column 16, lines 5-66 and figures 12 and 13 a curb is indicated as an extreme load, an extreme incline, in which more engine torque is needed to be applied in order for movement of the vehicle).
17. **(Claim 19)** Kosik et al. further discloses wherein the vehicle is a motor vehicle (figure 1).

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18. **(Claim 20)** Kosik et al. discloses a method for controlling and/or regulating a torque transmission system in a drivetrain, a clutch torque being changed as a function of a starting resistance of the vehicle in order to implement a strategy for starting the vehicle (Column 7, lines 34-37 and Abstract), the method comprising the steps of: determining if a starting resistance (load) is above a certain level (figures 11A and 11B, determined by the position of the load lever and if the vehicle is at rest), if so, modifying the strategy so that a progression of the clutch torque is adjusted by modifying a factor altering the clutch torque (multiplication factor K), the factor being modified by setting the factor to a first amount during a first time period so as to reduce the clutch torque ($K=1$), and increasing the factor by a predetermined rate after the first time period (figure 13, Column 17, lines 4-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 10, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosik et al. in view of Hur, US Patent No. 6,510,838.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20. **(Claims 10 and 11)** Kosik et al. discloses the method previously described for controlling the torque transmitting system including a starting aid routine, but does not disclose determining the roll direction in the starting routine or other driving direction using at least one sensor. However, Hur teaches an anti-rollback system that detects the roll direction of a vehicle that is starting/positioned on a slope using a magnetic sensor mechanism that distinguishes rotational directions of an output shaft of an automatic transmission.

21. **(Claim 15)** Kosik et al. does not disclose wherein a target engine speed is determined by a constant component (throttle valve angle, to determine that the driver desires to maintain a current position, in response the system varies the engine idle speed in order to maintain that position) in combination with a second component, the second component being a function of the engine speed gradient (figure 7 and Column 2, line 54-Column 3, line 14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of Kosik et al. with the teachings of Hur because, as

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Hur teaches, the determination of the roll direction on the startup of a vehicle increases the driving comfort and safety of the vehicle by preventing the vehicle from rolling back when started on an incline, and with the method of Kosik et al. would prevent the system from requiring the driver to initially exaggerate the load, and on a decline, prevents the vehicle from experiencing acceleration shocks (Column 3, lines 4-14).

Allowable Subject Matter

22. **Claims 12 and 16** are objected to as being dependent upon a rejected base claim and are at present considered to overcome the prior art of record if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

23. **Claims 21 and 22** are at present considered allowable.

Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine M. Behncke whose telephone number is (571) 272-8103. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

07-23-2005


THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP